EXHIBIT 2

HONORABLE MARSHA J. PECHMAN

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

IN RE WASHINGTON MUTUAL MORTGAGE BACKED SECURITIES LITIGATION This Document Relates to: ALL CASES	Master Case No. 2:09-cv-00037-MJP **CLASS ACTION**

DAUBERT MOTION DECLARATION OF CHARLES D. COWAN, Ph.D.

MAY 25, 2012

I. ASSIGNMENT

I, Charles D. Cowan, have prepared this declaration describing my work, findings and opinions since the date of my Expert Report, dated March 2, 2012, and in response to the motion filed by Defendants to exclude my own testimony and the testimony of Mr. Ira Holt (the "Daubert Motion"), at the request of Cohen Milstein Sellers & Toll PLLC and Scott + Scott, LLP, attorneys for the Boilermakers National Annuity Trust Fund, Doral Bank Puerto Rico, Policemen's Annuity Benefit Fund for the City of Chicago, and the class, the plaintiffs in this matter.

Defendants have previously submitted as Exhibit 1 to the Declaration of J. Wesley Earnhardt a copy of my Expert Report, dated March 2, 2012, and as Exhibit 2 thereto the Expert Report of Ira Holt, dated March 2, 2012. The reader is referred to those exhibits where they are referenced rather than attaching them again hereto.

Since the date of my Expert Report, my staff has spent 3,437.55 additional hours re-underwriting a sample of loans in the six securitizations at issue in this matter. To date, my underwriters have re-underwritten 1,451 loans, including the initial 424 loans. At the conclusion of this declaration I give a summary of the results of the outcomes of this review to date.

I have not been deposed in connection with this action. I have not been asked to and have not endeavored to respond to each and every assertion in Defendants' expert rebuttal reports but would be prepared to do so at trial. In this declaration, I respond only to certain points raised in the Daubert Motion, or to points in Defendants' expert's report explicitly referenced therein.

II. RESPONSES TO DAUBERT MOTION

There are a number of erroneous and misleading statements offered in the Daubert Motion by the Defendants, as well as in the report by Dr. Wecker. In this declaration, I present some clarifications based on sound statistical theory, much broader literature and more recent references than those used by Dr. Wecker, and some facts that Dr. Wecker failed to disclose in his report.

The Sampling Method Employed

In the Daubert Motion, the methodology employed is described on pages 2 and 3:

> *To select his sample, Dr. Cowan divided the loans in each securitization into "strata" based on FICO score and loan-to-value (LTV) ratio. He then arranged the loans in each stratum by loan number and selected a portion of those loans for his sample through a process called "interval sampling", whereby every "n^{th}" loan following the first randomly selected loan was included in the sample.*

This is indeed what I did, but the description is missing one further piece: the first randomly selected loan is a loan in positions between 1 and k, with those values (1, 2, ..., k) being integer values because they refer to the position in the list. The Daubert Motion fails to mention this, though it could be inferred from the example given.

In the description in his report, Dr. Wecker says:

> *Dr. Cowan used a sample selection method of his own peculiar design.* (Wecker Rep. ¶ 17.)

It is not my own design, "peculiar" or not. It can be found in multiple textbooks on sampling theory, including the reference used by Dr. Wecker. Dr. Wecker references only one textbook in his report, Sampling Techniques[1] by William Cochran. This is an outstanding reference work.

If we look at Cochran, "Chapter 8: Systematic Sampling" and section 8.1, page 205, we find:

> *This method* [systematic sampling] *of sampling is at first sight quite different from simple random sampling. Suppose that the N units in the population are numbered 1 to N in some order. To select a sample of n units, we take a unit at random from the first k units and every kth unit thereafter.*

[1] Cochran, William G., Sampling Techniques, John Wiley & Sons, 1977.

My design is exactly what is described in the only reference work cited by Dr. Wecker, using exactly the methodology that Dr. Cochran suggests, but that Dr. Wecker eschews. Cochran also directly addresses the concern raised regarding the list of loans and ordering of the loans. On page 212, in the section entitled 8.5 Populations in "Random" Order (his quote marks), he states:

> *Systematic sampling is sometimes used, for its convenience, in populations in which the numbering of the units is effectively random. This is so in sampling from a file arranged alphabetically by surnames, if the item that is being measured has no relation to the surname of the individual. ... In this situation we would expect systematic sampling to be essentially equivalent to simple random sampling.*

Dr. Cochran goes on to point out two of the advantages of using a systematic sample: it is easier to implement and it is likely to be more precise than simple random sampling. (Cochran, page 205). In support of this latter point, the Encyclopedia of Survey Research Methods says:

> *Systematic sampling can be viewed as a form of implicit stratification. Conceptually, the frame is split into n zones each of size k and one selection made from each zone. When the frame is sorted by key analysis domains prior to selection, this implicit stratification results in a sample that is close to the results of stratification with proportional allocation.*[2]

This is the situation we have, with the loans ordered by loan number. In many instances, loan number is related to the origination date (later loan originations got higher loan numbers), so sorting by loan number gives an implicit stratification by date of origination - a proportional sample across dates.

[2] Cox, Brenda G. "Systematic Sampling." *Encyclopedia of Survey Research Methods*. 2008. SAGE Publications. 7 Mar. 2009.

Dr. Cochran finally concludes, at page 229, in the section entitled 8.14 Summary,

> *In the light of these results systematic sampling can safely be recommended in the following situations.*
>
> *1. Where the ordering of the population is essentially random or contains at most a mild stratification. Here systematic sampling is used for convenience, with little expectation of a gain in precision. Sample estimates of error that are reasonably unbiased are available (section 8.11).*
>
> *2. Where a stratification with numerous strata is employed and an independent systematic sample is drawn from each stratum.*

In short, Dr. Cochran - the one authoritative reference that Dr. Wecker relies on - recommends use of systematic sampling in exactly the situation we are in, and in exactly the same way it is applied in our sample.

Earlier technical writing and examples of the use of systematic sampling date back to the early 1940's. Every sampling practitioner knows that there are tradeoffs in the sampling methods chosen. In some cases, the tradeoffs involve obtaining greater precision at the cost of making an assumption about the distribution of cases to be sampled. This is true here, and it's true in other sampling textbooks, cited in the next section, that describe how systematic samples should be selected.

Other Authoritative References

Dr. Cochran is not the only author who has written about systematic sampling, describing it in this way. There are several other textbooks that describe the systematic sampling process in exactly the same way described above for our sample of loans.

In Model Assisted Survey Sampling[3] , page 74, the authors describe the method:

For a more formal definition of this type of systematic sampling, let "a" be the fixed sampling interval and let n be the integer part of N/a, where N is the population size. Then N = na+c where the integer c satisfies 0 ≤ c < a. If c=0, a sample of size n will be drawn by the procedure we now present. If c > 0, the sample size is going to be either n or n+1. The selection, which can be seen as list sequential, is as follows:

i. Selection with equal probability 1/a a random integer, say r, between 1 and a (inclusively).

ii. The selected sample is composed as

$$s = \{k:k=r+(j-1)a \leq N;\ j = 1, 2, \ldots, n_s\} = s_r$$

say, where the sample size n_s is either n+1 (when r≤c) or n (when c<r≤a).

The integer r is called the random start.

Applied Sampling[4] , describes the procedure on page 52, in section 3.2 Systematic Sampling:

To do systematic sampling, just two things are needed: the sampling interval and a random start. The sampling interval, if one has a list and wishes to approximate simple random sampling, is merely the ratio i=N/n of the number of elements in the population (N) to the desired sample size (n). In selecting more complex samples, as discussed in chapter 7, the sampling interval is computed in a slightly different way, using measures of size.

A table of random numbers is used to select the initial number between 1 and i, called the "random start."

In Sampling of Populations[5] , page 82, a shorter but by now familiar description is given:

To generalize, a systematic sample is taken by first determining the desired sampling interval k, choosing a random number j between 1 and k, and selecting the elements labeled j, j+k, j+2k, j+3k, ...

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[3] Särndal, Carl-Erik, Swensson, Bengt, and Wretman, Jan, Model Assisted Survey Sampling, Springer-Verlag, New York, 1992.

[4] Sudman, Seymour, Applied Sampling, Academic Press, New York, 1976.

[5] Levy, Paul and Lemeshow, Stanley, Sampling of Populations, John Wiley & Sons, New York, 1999.

In Sampling Statistics[6] , the author gives the same description for sample selection as in Model Assisted Survey Sampling, and makes the comment, page 23:

> *If the elements are arranged in random order and if the elements are selected with equal probability, systematic sampling produces a simple random nonreplacement sample. Sometimes, for populations in natural order, the variance is estimated as if the sample were a random nonreplacement sample. Such variance calculation is appropriate if the natural order is equivalent to random order.*

In Sampling from a Finite Population[7] , page 113, another issue is raised with the start-with value:

> *We realize a random variable ξ having the uniform distribution over the interval (0,X/n) and compute n numbers ξ, ξ+X/n, ..., ξ +(n-1)X/n. ... If X/n is an integer, we may realize ξ as a random integer in the range (1,X/n). If X/n is not an integer, we multiply it by a power of 10 and then proceed similarly.*
>
> *The above procedure selects the unit i at most once, if* $\max_{1<i<N} x_i < \frac{X}{n}$. *Thus ... there will be no duplicates in the sample.*

Thus, Dr. Wecker is contradicted by textbooks on sampling that span decades between 1976 and 2009, including the very reference he cites. Certainly all of these authors must be aware that there are tradeoffs in the methodology employed, and all of them accept these tradeoffs as a means of simplifying the sampling process and improving precision.

[6] Fuller, Wayne, Sampling Statistics, John Wiley & Sons, New York, 2009.

[7] Hájek, Jaroslav, Sampling from a Finite Population, Marcel Dekker, Inc., New York, 1981.

Other Cases Where the Same Methodology is Used

The plaintiffs in *MBIA v. Countrywide* filed a motion *in limine* proposing the same methodology of stratification combined with systematic sampling. Judge Bransten issued an opinion[8] accepting both the proposed methodology and the recommendation for systematic sampling using an ordering of the loans by loan amount. As I explained at the hearing held by Judge Bransten regarding the proposed methodology, ordering loans by loan amount allows us to have a proportional selection of loans by credit score, by combined loan to value, and by loan amount so that the representativeness of the sample is improved.

Tradeoffs in Sampling Theory

There is a reason that all of the authors mentioned above suggest the methodology we used for selecting the sample. The methodology employed has two major advantages. The first is that the use of an ordering like that used - loan number within stratum - gives us a proportional sample of loans over time. If the securitization contains few loans from early years and more in later years, this guarantees that the sample correctly reflects timing of origination of the loans.

The second major advantage is that it doesn't give loans multiple chances of selection in the sample. The Defendant's Motion implies that expanding the choices for starting points would be preferable:

> *However, because the interval (4.528735632) was greater than the number of possibilities for the starting point (four), as a matter of mathematical fact, there were several loans in that stratum that were assigned zero probability of selection.*[9]

This is certainly correct. However, Table 1 below shows that if the starting point was instead larger than the interval, then some loans would have two chances of being selected, meaning that many of the loans could fall into the sample in many different ways, defeating the purpose of using systematic sampling.

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[8] Decision by Judge Eileen Bransten, 12/22/2010, in *MBIA Insurance Corporation v. Countrywide Home Loans, et al.*

[9] Defendants Motion, page 3, lines 5 through 8.

Table 1: Example Using Defendants' Values of How Duplications in Sampling Could Occur

Take Every = 4.528725632

Computation of Loan Number to Select	**Random Start Values Used**				**Value Not Considered**	
Random Start	1	2	3	4	5	
Start Plus Take-Every	5.5287	6.5287	7.5287	8.5287	9.5287	
Start Plus 2*Take-Every	10.0575	11.0575	12.0575	13.0575	14.0575	
Start Plus 3*Take-Every	14.5862	15.5862	16.5862	17.5862	18.5862	
Start Plus 4*Take-Every	19.1149	20.1149	21.1149	22.1149	23.1149	
Start Plus 5*Take-Every	23.6436	24.6436	25.6436	26.6436	27.6436	
Start Plus 6*Take-Every	28.1724	29.1724	30.1724	31.1724	32.1724	

Integer Loan Number to Select	**Random Start Values Used**				**Value Not Considered**	
Random Start	1	2	3	4	5	
Start Plus Take-Every	6	7	8	9	**10**	Duplicate
Start Plus 2*Take-Every	**10**	11	12	13	14	
Start Plus 3*Take-Every	15	16	17	18	**19**	Duplicate
Start Plus 4*Take-Every	**19**	20	21	22	23	
Start Plus 5*Take-Every	24	25	26	27	**28**	Duplicate
Start Plus 6*Take-Every	**28**	29	30	31	32	

In the upper part of Table 1 we have the method used to compute the loan number to be selected. A random start of 1, 2, 3, or 4 is selected at random. Once that value is selected, the take-every interval is added successively to obtain the loan numbers to be selected. For example, with a random start of 2, we would take loan number 2, loan number 6.53, (2+4.53), loan number 11.06 (2+4.53+4.53), loan number 15.59 (2+4.53+4.53+4.53), and so on. These are the numbers in the third column of the table. However, you cannot pick loan number 6.53 in order - the ordering numbers are only integers. Therefore, we round the numbers to tell us which loans to select. These are the values given in the lower half of Table 1.

Now consider using the random start of "5". This is the last column of Table 1. Were we to allow random start values that are greater than the sampling interval (the take-every), we would give some loans two chances to fall into the sample. For example, loan 10 would fall into the sample with a random start of 1 or a random start of 5.

Defendants complain that loans embedded in a sequence (by loan number) have no chance of selection, but the alternative is to give some loans multiple chances to fall into the sample. There is no reason to believe that loans in the sequence that are missed in the methodology above are any different from the loans that precede or follow them, which is the basis for the use of systematic sampling in the form recommended by the six authors above, including Dr. Cochran, the author of the textbook used by the Defendants' expert.

Finally, Dr. Wecker tells only half the story in his Appendix A. He does replicate the process of sampling in his Table A1. What he fails to say is that extending the sequence to the next random start identifies nearly as many numbers that have two chances for selection as numbers that are not in a sampling sequence. His only alternative is to argue that systematic sampling should never be used for any application, which is clearly ridiculous since every sampling expert cited above promotes it as a method because of clear benefits in the use of systematic sampling.

Every sampling expert recognizes that there are tradeoffs in the choice of designs for sampling. There are several advantages to the selection of the sample using systematic sampling. In particular, it gives us a method for allocating the sample proportionally over time. The exclusion of loans from the possibility of being sampled ignores the benefits of sampling systematically to achieve a proportional sampling and to reduce the potential variability of the sample outcomes. Describing this as a "textbook" error[10] is incorrect - there are six textbooks referenced above, including the one that Defendants' expert used, that recommend the method we applied.

Implications

If the concerns voiced by Dr. Wecker and the Defendants in their Motion had any legitimacy, they would demonstrate a deleterious impact on the quality of the sample due to the exclusion of some loans from sampling. This could be done by showing that the loans excluded from selection were significantly different than the loans that were sampled. In other words, there is a simple analysis to show whether the loans in the last column of Table 1 above that are not included in the sample are the same or different than the loans in other columns that are included.

[10] Defendant's Motion, page 2, line 9.

Our underlying assumption is that the loans listed sequentially by loan number are similar to their next-door neighbors, especially as there seems to be no rhyme or reason as to the assignment of loan numbers other than sequentially as borrowers came in the door of the mortgage company. The alternative is that loans 5, 14, 23, and so on in Table 1 above are significantly different from the other loans around them (4&6, 13&15, 22&24, etc.). There is no reason to believe this, but this is testable.

Defendants either did not perform or, if they did, do not offer the results of this test; we do. Charts 1, 2, and 3 below show that, for key variables where we know the values for all loans in the population, there is no material difference between the loans which were in sequences that could be sampled and loans which were in sequences that could not be sampled under our methodology. In other words, on key variables that the Defendants used to underwrite the loans and assess the risk of the loans, there are no measurable differences.

The conclusion to draw from this analysis is that there is no basis for saying that loans eligible to be sampled are different from those that are not eligible. The construct used for sampling sequentially gives us a benefit in reliability with no loss in the projectability of the sample to the population, which is the basic requirement for a sample to be useful.

Chart 1: Differences on FICO Between Loans that are Covered or Not Covered in the Selection of the Sample

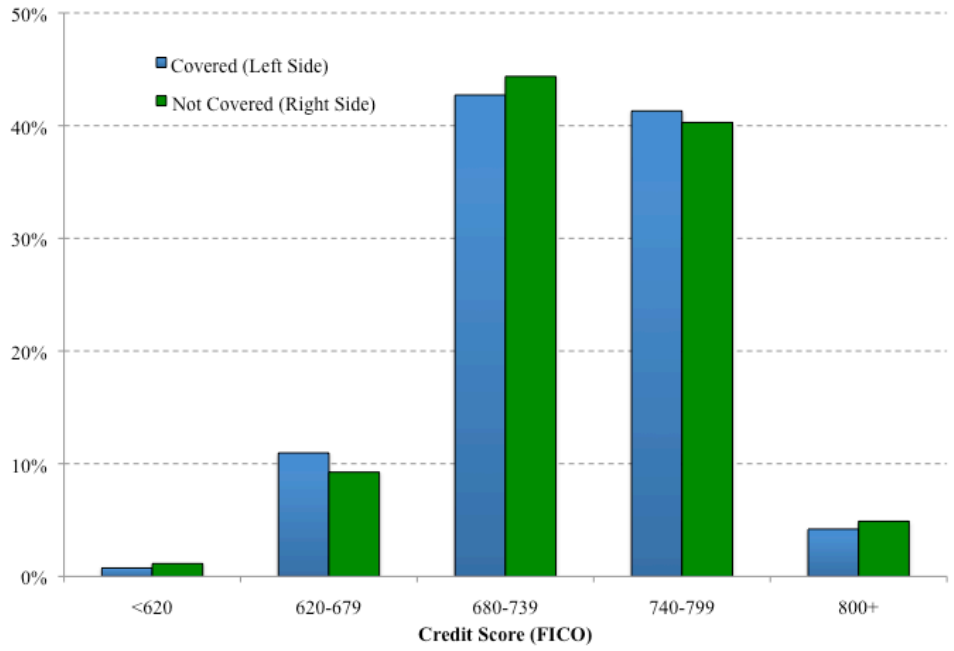


Chart 2: Differences on LTV Between Loans that are Covered or Not Covered in the Selection of the Sample

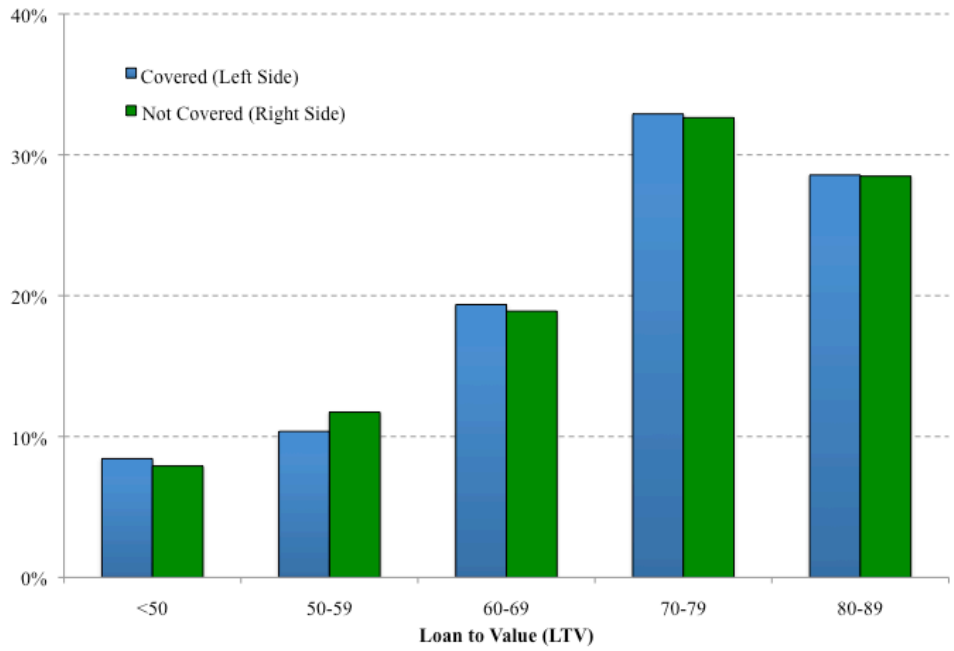
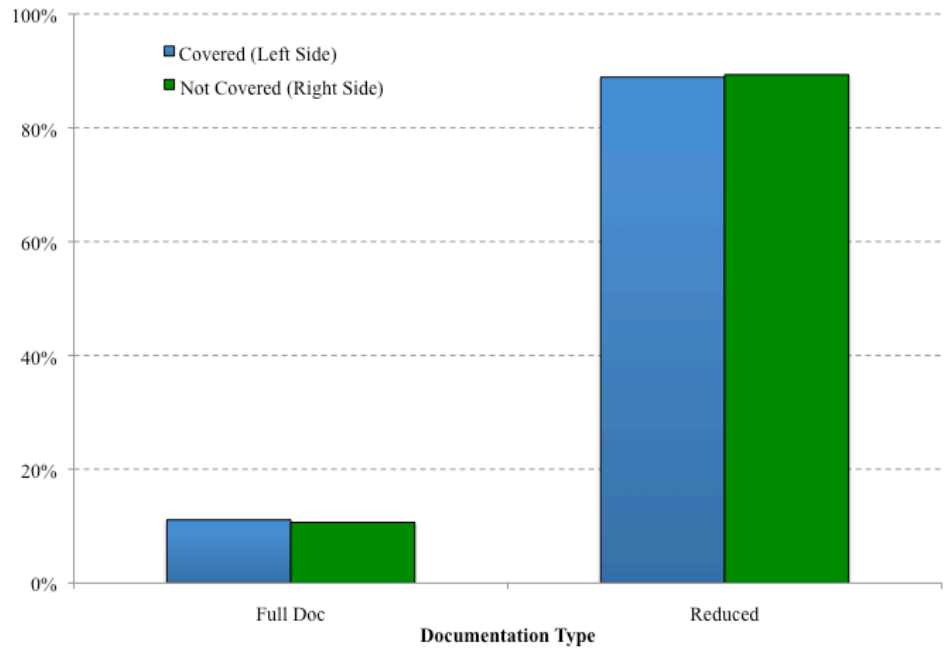


Chart 3: Differences on Documentation Type Between Loans that are Covered or Not Covered in the Selection of the Sample



In all three charts, the distributions are nearly identical for Credit Score, Loan to Value, and Documentation Type. Similar comparisons are available for other characteristics, but these three were chosen as examples because of the importance of these variables to determining the risk inherent in the loans.

The Defendants had ample opportunity, in their review of the loans included and not included in the subframe for sampling, to do this type of analysis. If they had found a difference, they would have surely pointed out any meaningful difference found. The suggestion that the sample is not representative because of the type of sampling used is specious and ignores the tradeoffs one makes in conducting research when making choices about methodology.

Loans That Were Re-underwritten

The second statistical issue alleged by the Defendants in their Motion is that loans underwritten by Mr. Holt are not a random subsample. The question that should be addressed is whether the set of loans reviewed are projectable to the population, which is the primary goal of the sample.

The summary presented on page 3 of the Motion misstates the analysis conducted by Defendants' own expert. The argument raised by the Defendants in their Motion talks about how 424 loans would have been distributed had they been selected randomly. This isn't what Dr. Wecker argues; he argues, "To illustrate quantitatively, consider what would occur in a proper random sample of 424 loans from a population of 13,425 loans." (Wecker, page 20 in Appendix B). This is the sample that Dr. Wecker would select in some other way. In other words, Dr. Wecker is arguing about a new sample that would be selected, not the sample of 2,387 loans I originally selected, using the methods described in Cochran, et al.

In this description, Defendants make two false assumptions. The first requires that all loans be sampled from one large pool of loans - the 13,425. This was not how the sample was selected. It was selected from small pools of different sizes. With 424 loans and 303 strata (16 strata defined by credit score and CLTV in each of multiple pools within the six deals), it would be very difficult for the distribution of loans to be 1.4 loans per stratum - the ultimate conclusion of the argument that Dr. Wecker presents. The second assumption is that the subset of 424 should be distributed exactly the same as the 13,425. The 424 is a subset of the 2,387 loans, after the 2,387 loans were selected; they can only be compared now to the 2,387 loans, not the 14,435.

Many strata had only 1, 2, or 3 loans sampled in the original sample (the sample of 2,387 loans), so it shouldn't be a surprise that some of these strata do not have re-underwritten loans after only 424 loans are re-underwritten. In fact, in the original sample with proportional allocation (again, the sample of 2,387 loans) there are numerous strata that have no sample. For example, in loan pool 8042 (part of 2007-HY1), 2 of the sixteen strata had no loans selected even though there are loans in the population, another five of the sixteen strata have only 1, 2, or 3 loans selected from the population, and only six of the sixteen strata have more than six loans, meaning only six strata would have a better than 50/50 chance of having a loan in the 424 selected.

Dr. Wecker misleads the reader into thinking that there are equal chances of having a loan selected into a stratum, when in fact the majority of strata are very small because of the predominance of loans that are low FICO / low CLTV or high FICO / high CLTV - loans are not equally distributed in all combinations of FICO and CLTV groupings, which is why the original

sample design we implemented is allocated proportionally to these categories. Thus, it shouldn't be a surprise that a loan selected at random doesn't happen to fall into the Low FICO / High CLTV category - there was only one in the population out of 810 in pool 2042 of WAMU 2007 HY1.

The final part of the statistical argument raised in the Defendants' motion is that the sample of 424 is biased. Defendants and their expert make the claim that some purposeful, non-random selection process was involved in the selection of the 424 loans because the FICO scores are low. However, in his own tables, Dr. Wecker also demonstrates that there doesn't seem to be a bias with respect to LTV or original balance.[11] As noted in the previous paragraph, both of these are strongly correlated with credit score. In particular, Dr. Wecker's own tables show that the population has its highest concentration in cells where there is a low FICO / low CLTV and a high FICO / high CLTV[12]. To obtain a low FICO but average LTV and average income would require great art in finding loans in the morass of materials thrown at us by the Defendants. The truth is that loans were underwritten as they were found, as the process of finding any sampled loan in the hundreds of thousands of unsearchable materials was difficult and time consuming.

Dr. Wecker makes our point for us, however, regarding the high rate of materially defective loans, and then reinforces the point in his Table B4 which shows the materially defective rate in the sample and the population distribution of the same loans. There is a common sense statistical procedure that Dr. Wecker could employ to complete his presentation - but he didn't.

What Dr. Wecker does not disclose is that in our calculations, the sample is weighted to correctly account for the larger proportion of loans from 2006-AR7. In every survey, it is possible to use the known population data to adjust the sample to correct for deviations from the population distribution. Indeed, it is a procedure described in Dr. Wecker's reference text by Cochran. Dr. Cochran describes a procedure called poststratification, which is a weighting of the sample using the known population proportions.[13] It is well known that any given sample may not exactly

[11] Wecker Rebuttal Report, Table B3, page 31.

[12] Wecker Rebuttal Report, Table B1, pages 23 - 29.

[13] Cochran, page 134, section 5A9, Stratification After Selection of the Sample.

reflect the population distributions, and real problems like differential response occur in surveys everyday. The surveys conducted by the Bureau of the Census on Income, Health, Consumer Expenditures, Unemployment, and a variety of other issues all have these issues of differential response, and are all adjusted by using poststratification weights.

For example, in population surveys, the respondents are more likely to be women than men because women answer surveys at a higher rate than men. In population surveys, there is a higher response rate in the South than in the Northeast because people in the South are more likely to answer surveys than people in the Northeast. If one is conducting a survey on income, these factors have to be taken into account. Researchers are aware that women earn less than men and average personal income in the South is less than average personal income in the Northeast. To obtain a correct estimate for the population, the solution is to weight the sample estimates by their population proportions. This is a common procedure used in every survey.

I performed precisely such a poststratification adjustment to the results of the loans surveyed to be sure that the sample reflected the population as a whole. As noted earlier, the sample results we produced are already weighted to account for the differential proportions of loans sampled from the six deals. We can go one step further to deal with the one variable that Dr. Wecker focuses on, the Credit Score. Using Table B4 from Dr. Wecker's report, we can readily make an adjustment that reflects the distribution of the loans in the population. Note that, by construction, the proportions in the sample of 2,387 by FICO quartile are the same as the proportions in the full population of loans.

Table 3: Using Dr. Wecker's Numbers, the Materially Defective Rate is Still Above 40%

FICO Quartile	Loans in Original Sample		Loans Reviewed		Materially Defective Loans		Percent Defective
	Number	Percent	Number	Percent	Number	Percent	
1st (Lowest)	594	24.9%	181	42.7%	92	51.7%	50.8%
2nd	594	24.9%	66	15.6%	34	19.1%	51.5%
3rd	600	25.1%	73	17.2%	26	14.6%	35.6%
4th	599	25.1%	104	24.5%	26	14.6%	25.0%
Total	2387	100.0%	424	100.0%	178	100.0%	42.0%

Unweighted Percent Defective =	178/424	42.0%
Weighted Percent Defective		**40.7%**

The last line in Table 3, showing the Weighted Percent Defective, is computed by taking the final column of the percent Defective Loans and taking the weighted average using the first column of numbers of loans in the original sample. The weighted values are always better than the unweighted numbers (so 40.7% is a better estimate than the 42.0%) because the weighting brings the sample back into line with the population.[14]

Dr. Wecker's table completely undercuts Defendants' contention that the "disproportionate number came from a quartile with the lowest FICO scores, which significantly inflated the number of loans that he (Mr. Holt) deemed 'materially defective'"[15]. The rate changed from 42% to 40.7% - hardly a significant inflation. The margin of error computed from sampling is plus or minus 5% approximately, so this supposed "inflation" is lost within the sampling variation already accepted in other courts on the same issue, and well within a statistically palatable margin of error.

Once again, were there a significant impact on the outcomes or the analysis, the Defendants would have pointed out the differences that ensued to bolster their argument. Instead, they offer a weak and unsupported argument about what they would have liked to have seen in the distribution of loans reviewed, and no support for why the analysis would be any different. Table 3 shows that, despite their claims, there is no perceptible difference - the defect rate **is over 40%**, even after adjusting for the number and types of loans reviewed.

Further Review of Loans

The loan review has continued and a total of 1,451 have been reviewed to date. The weighted average material defect across the six securitizations remains high, at 38.6% and varies somewhat between the six securitizations as would be expected. Table 4 below shows that more loans have been reviewed from each of the securitizations and that the reliability for each of the securitizations and for the total is very good. Table 4 includes not only the estimated material

[14] These numbers differ from the final results presented below because they are have no weighting to reflect the number of loans in the deals that are being combined. As noted earlier, the numbers below in Table 4 are weighted by the number of loans in each of the deals.
[15] Defendants' Motion, page 4, lines 3 through 5.

defect rate, but also a 95% lower confidence bound, meaning that there is only a 5% chance that the material defect rate is below this bound. For example, for the six securitizations combined, the material defect rate is 38.6%, but the lower confidence bound is 36.5%, meaning there is only a five percentage point chance that the true population value is below 36.5%. This 38.6% material defect rate is up only slightly from the 37.1% rate based on the 424 loans reviewed as of my March 2 Report, and well within the expected range based on the original sample.

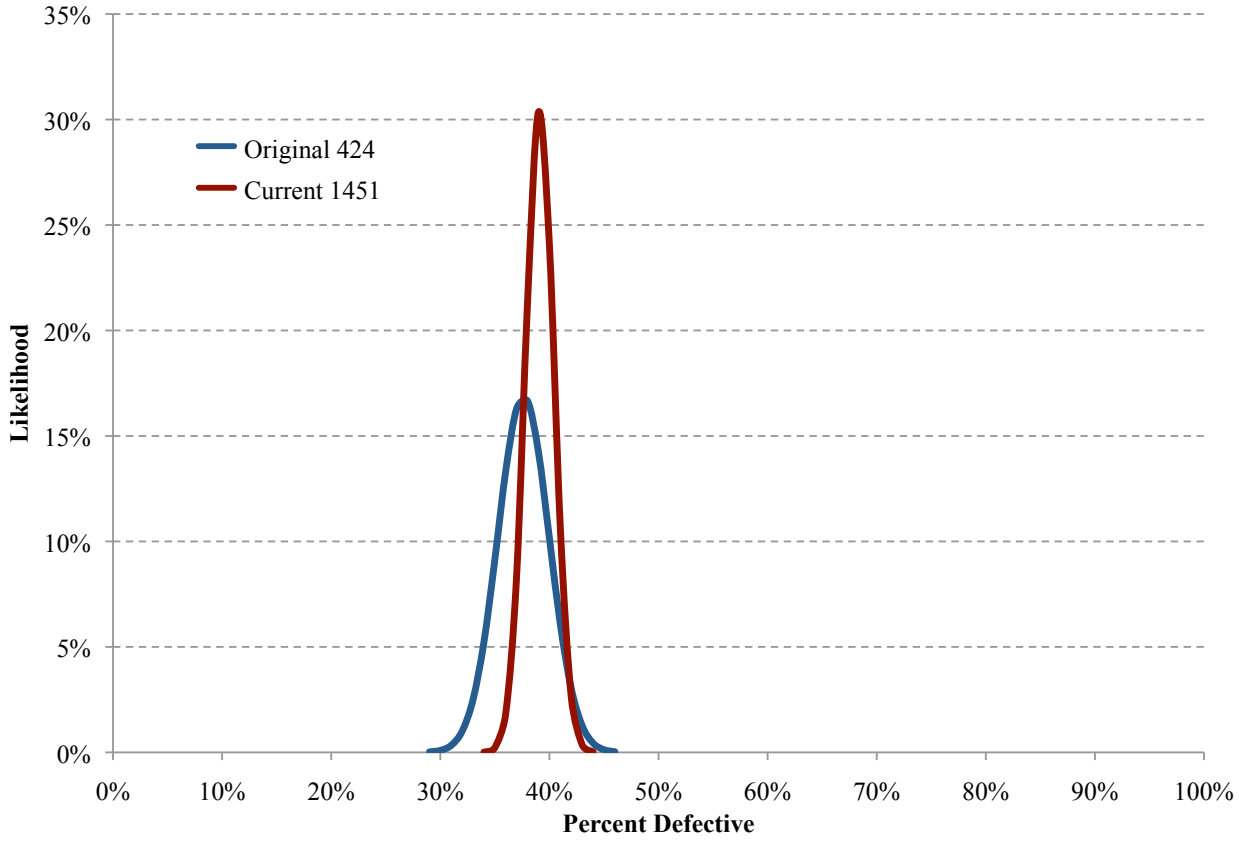
Table 4: Results of Continued Underwriting of Loans for Six Securitizations

	Current Results with 1,451 Loans Reviewed			Results from March 2nd Cowan Report		
Securitization	Sample Size	Materially Defective Rate	95% Lower Bound	Sample Size	Materially Defective Rate	95% Lower Bound
WAMU 2006-AR7	235	65.10%	60.00%	118	61.00%	53.90%
WAMU 2006-AR12	249	31.70%	26.9%	57	45.60%	35.90%
WAMU 2006-AR16	197	31.50%	26.00%	67	22.40%	15.50%
WAMU 2006-AR17	243	65.00%	60.00%	54	68.50%	58.50%
WAMU 2006-AR18	289	22.80%	18.80%	59	27.10%	19.20%
WAMU 2007-HY1	238	28.20%	23.40%	69	17.40%	11.50%
Total	1451	**38.60%**	36.50%	424	37.10%	33.30%

Note that for AR-12, the current estimate of the defect rate is 31.7%, lower than the 35.9% lower confidence bound (95% confidence level) published in the March 2nd report. For any one of the numbers published in the table in the March 2 report, there is a 95% confidence level that the true population value is above the lower bound published in Table 1, page 11 of that report. However, there is only a 73.5% chance (.735 = .95*.95*.95*.95*.95*.95) that all six will be above the bounds, and a 26.5% chance that one or more will be below the bound. So with the larger sample, there's a better than 1 in 4 chance that at least one of the revised estimates will fall below the bound published in the March 2 report, so this result is not inconsistent with ordinary statistical averages.

Comparing the results of the original report with the current results, the reliability has improved as the number of loans reviewed increases. Chart 4 below shows the ranges on the estimates for the original sample of 424 and the current sample of 1451.

Chart 4: Results for All Securitizations Combined for Original Sample Reviewed and Current Sample Reviewed



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Respectfully submitted,

Charles D. Cowan, Ph.D.
Analytic Focus, LLC
200 Cahaba Park Circle, Suite 260
Birmingham, AL 35242
(205) 981-2322

Expert Witness for Plaintiffs